

Appln No. 10/091,267  
Amdt Dated February 13, 2006  
Reply to Office Action of November 15, 2005

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### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims

Claim 1 (cancelled)

Claim 2 (cancelled)

Claim 3 (currently amended) The device of claim ~~1~~ 13 further comprising means for transmitting the ordered sequence of recommended reassignments.

Claim 4 (cancelled)

Claim 5 (cancelled)

Claim 6 (cancelled)

Claim 7 (currently amended) The method of claim ~~5~~ 14 wherein the number of reassignments in the ordered sequence of recommended reassignments is less than a predetermined number.

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Claims 8-9 (cancelled)

Claim 10 (currently amended) A method of reassigning communications paths in a communications network comprising the steps of:

- (a) analyzing a representation of a set of out-of-kilter communications paths and a representation of a set of in-kilter communications paths to generate an analysis;
- (b) generating a set of permitted changes, based upon the analysis, to both the representation of the set of out-of-kilter communications paths and the representation of the set of in-kilter communications paths; and
- (c) generating, in response to the set of permitted changes, an ordered sequence of recommended reassignments of communications paths and associating at least one out-of-kilter communications path associated with the ordered sequence of recommended reassignments with a new in-kilter communications path. ~~The method of claim 5~~ wherein communications paths which are originally in-kilter are reassigned only if such reassignments make it feasible to reassign an out-of-kilter communications path.

Claim 11 (currently amended) A method of reassigning communications paths in a communications network comprising the steps of:

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- (a) analyzing a representation of a set of out-of-kilter communications paths and a representation of a set of in-kilter communications paths to generate an analysis;
- (b) generating a set of permitted changes, based upon the analysis, to both the representation of the set of out-of-kilter communications paths and the representation of the set of in-kilter communications paths; and
- (c) ~~The method of claim 5 further comprising the step of~~ generating multiple backward subsequences, each backward subsequence having an out of-kilter communications path as its first reassignment; and
- (d) generating, in response to the set of backward subsequences, an ordered sequence of recommended reassignments of communications paths wherein each out-of-kilter communications path in a backward subsequence is associated with a new in-kilter communications path in the ordered sequence of recommended reassignments.

Claim 12 (original)      The method of claim 11 wherein each backward subsequence found is translated to a forward subsequence, and all forward subsequences are combined to form a single ordered sequence of recommended reassignments.

Claim 13 (new)      A device for reassigning communications paths in a communications network comprising:

- (a) means for determining subsequences of communications paths that will be reassigned onto new routes wherein each ordered subsequence comprising in-kilter communications paths and an out-of-kilter communications path;

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- (b) means for determining an ordered sequence of reassignments of the communications paths that will be reassigned in an ordered subsequences; and
- (c) means for executing the reassignments in the ordered sequence of reassignments sequentially according to the order in the sequence wherein after execution all reassigned communications paths are in-kilter, each reassigned communications path is reassigned with its entire load onto a single new route, communications paths which are originally in-kilter are reassigned only if such reassignments make it feasible to reassign an out-of-kilter communications path, and none of the link capacity constraints is violated after executing each of the reassignments.

Claim 14 (new) A method of reassigning communications paths in a communications network comprising the steps of:

- (a) determining ordered subsequences of communications paths that will be reassigned onto new routes wherein each ordered subsequence comprising in-kilter communications paths and an out-of-kilter communications path;
- (b) determining an ordered sequence of reassignments of the communications paths in all ordered subsequences; and
- (c) executing the reassignments in the ordered sequence of reassignments sequentially according to the order in the sequence wherein after execution all reassigned communications paths are in-kilter, each reassigned communications path is reassigned with its entire load onto a single new route, communications paths which are originally in-kilter are reassigned only if such reassignments make it feasible to reassign an out-of-kilter communications path, and none of the link capacity constraints is violated after executing each of the reassignments.

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Claim 15 (new) The method of claim 14 further comprising the step of generating multiple backward subsequences, each backward subsequence having an out-of-kilter communications path as its first reassignment.

Claim 16 (new) The method of claim 15 wherein each backward subsequence found is translated to a forward subsequence, and all forward subsequences are combined to form a single ordered sequence of recommended reassignments.